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Reference: GW-4b Water Well Protection. During final pipeline design, SFPP shall ensure that the pipeline and all construction activity are located at least 200 feet from any existing water well. Depending on the geology of any particular location, a greater separation or special pipeline design features (e.g., use of thicker-walled pipe to further protect against third-party damage) may be required. In addition, in accordance with California Government Code Sections 51017.1 and 51017.2, if the pipeline is located within 1,000 feet of a public drinking water well, SFPP shall prepare a Pipeline Wellhead Protection Plan that describes SFPP's efforts to ensure pipeline integrity and response measures. A report on water wells, providing the information required in this measure shall be submitted to the State Fire Marshal and the CSLC for review and approval 60 days prior to the start of construction. *Regulations to implement this code section have not been finalized.* 

18-24

#### Reference: D.9.2.1 Federal

The primary federal agencies anticipated to have jurisdiction over the Proposed Project include: the U.S. Department of Transportation (DOT), which regulates the technical performance of oil and gas pipelines; the U.S. Environmental Protection Agency (USEPA), which has oversight authority over issues such as hazardous materials; and the U.S. Army Corps of Engineers (USACE) which regulates discharges into waters of the U.S. *The California State Fire Marshal as an interstate agent for DOT has exclusive jurisdictional authority over the design, construction, operation, maintenance and testing of this pipeline.* 

18-25

#### Reference: F.2 Enforcement Responsibility

The CSLC is responsible for enforcing the procedures adopted for monitoring through the environmental monitor assigned to each construction spread. Any assigned environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CSLC or its designee.

18-26

While CSLC may address environmental issues, CSLC does not have enforcement authority on any pipeline safety issues. Only DOT has this authority.

#### Reference: F.4 General Monitoring Procedures

Environmental Monitors. Many of the monitoring procedures will be conducted during the construction phase of the project. The CSLC and the environmental monitor(s) are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with SFPP. To oversee the monitoring procedures and to ensure success, the environmental monitor assigned to each construction spread must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

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Construction Personnel. A key feature contributing to the success of mitigation monitoring will be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures require action on the part of the construction supervisors or crews for successful implementation. To ensure success, the following actions, detailed in specific mitigation measures, will be taken:

- Procedures to be followed by construction companies hired to do the work will be written into contracts between SFPP and any construction contractors. Procedures to be followed by construction crews will be written into a separate document that all construction personnel will be asked to sign, denoting agreement.
- One or more preconstruction meetings will be held to inform all and train construction personnel about the requirements of the monitoring program.
- A written summary of mitigation monitoring procedures will be provided to construction supervisors for all mitigation measures requiring their attention.

General Reporting Procedures. Site visits and specified monitoring procedures performed by other individuals will be reported to the environmental monitor assigned to the relevant construction spread. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist will be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor will note any problems that may occur and take appropriate action to rectify the problems.

**Public Access to Records.** The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the CSLC or its designee on request. The CSLC will develop a filing system.

All issues identified by monitors relating to the design and construction of the pipeline that fall under Part 195 regulations must be immediately reported to the State Fire Marshal for review.

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As noted previously, the following mitigation measures are either in conflict with DOT regulations or jurisdiction belongs to CSFM. The State Fire Marshal should be added to those agencies having jurisdiction.

18-28

S-2: A pipeline accident could result in injury or fatalities to nearby public.	S-2a: Prepare a Supplemental Spill Response Plan with resource information specific to approved route.	Entire alignment	Review and approval of plan.	Minimize effects in the event of a spill.	CSLC,	Prior to approval of construction
	S-2b: Perform monthly leak detection tests.	Entire alignment	Review monthly test results.	Reduce the impacts associated with slow releases.	CSLC	During and after construction
	S-2c: Perform valve location review along entire route.	Segment 3	Review of Applicant's relocation analysis report.	Increase effective- ness of check valve at MP 20.1.	CSLC	Prior to approval of construction
	S-2d: Prevent third party damage in most densely populated areas.	MP 24.5 to 28.3 (Fairfield/Suis un City) and MP 68.5 to 69.0	Approval of plans to minimize third- party damage and monitoring of implementation.	Minimize risk of pipeline rupture due to third-party damage.	CSLC	Prior to start of construction
	S-2e: Conduct pipeline inspections.	Entire alignment	Review inspection reports.	Minimize the likelihood of external corrosion caused releases.	CSLC	During and after construction
	S-2f: Ensure proper cathodic protection.	Entire alignment	Review inspection reports.	Ensure that adequate cathodic protection levels are maintained.	CSLC	During and after construction
	S-2g: Install pipeline markers	Entire alignment	Observe markers to verify compliance.	Minimize third- party damage.	CSLC	During and after construction
S-3: Improper pipeline abandonment could cause contamination, landslides, or erosion.	S-3a: Implement proper pipeline abandonment procedures.	All pipeline abandonment areas	Review of abandon- ment procedures and identification of any sensitive land uses.	Minimize adverse effects on special land uses and potential soil contamination.	CSLC	Prior to pipeline abandonment

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G-5: Active fault crossing scould result in loss of grocedures.  G-5: Active fault crossing design.  G-7: Liquefaction or procedures.	G-3: Slope failures or downslope creep of unstable natural or man-made slopes along the pipeline could lead to substantial pipeline damage or failure.	G-3a: Perform geotechnical investigations at landslide crossings.	Segment 2: MP 9.7 to 10.7, and MP 14.6 to 15.0 Segment 3: MP 19.7 to 20.1	Prepare site- specific geotech- nical study at all alignment cross- ings of known landslide deposits, incorporate site- specific design features to mini- mize potential for landslides to affect the pipeline.	The design recommendations of the report should be consistent with standard geotechnical engineering practice.	CSLC, CSFM	Prior to project construction
geotechnical studies for fault crossing design.  Grey Nalley Fault; Segment 3: Cordelia Fault; Segment 4: Moralte or sosing.  G-5: Active fault crossing could result in pipeline operations and maintenance practice into pipeline operations and maintenance procedures.  G-7: Liquefaction could result in loss of ground bearing capacity and/or signed and Contra Segment 2: MP 6.33 - 7.75, and WC 6-15, Segment 3: MP 18 9-19.7, 22.85-24.5, and WC 16A and 17, Segment 4: MP 24.5- 24.85, and WC 16A and 17, Segment 5: MP 61.2-65.2 Segment 5: MP 61.2-65.2 Segment 5: MP 61.2-65.2 Segment 6: MP 55.2-66.6, 66.8-67.2, Segment 6: MP 55.2-66.6, G6.8-67.2, Segment 6: MP 55.2-66.6, Green valley intered consistent with standard engineering reactions and maintenance procedures to the pipeline operations and maintenance procedures to the pipel				pipeline alignment outside of known landslide hazard zones east of	mendations of the report should be consistent with standard geotech- nical engineering	CSLC, CSFM	project
crossings could result in pipeline rupture.  G-7: Liquefaction could result in loss of ground bearing capacity and/or lateral spreading, both of which could result in damage to pipeline.  G-7: Liquefaction could result in damage to pipeline.  G-7: Liquefaction could result in loss of ground bearing capacity and/or lateral spreading, both of which could result in damage to pipeline.  G-7: Liquefaction could result in loss of ground bearing capacity and/or lateral spreading, both of which could result in damage to pipeline.  G-7: Liquefaction could result in loss of ground bearing capacity and/or lateral spreading, both of which could result in damage to pipeline.  Segment 3: MP 18.9–19.7, 22.85–24.5, and WC 6–15, Segment 4: MP 24.5–24.85, and WC 16A and 17, Segment 4: MP 24.5–24.85, Segment 5: MP 61.2–65.2 and all WC's, Segment 6: MP 65.2–66.6, 66.8–67.2,	crossings could result in pipeline	geotechnical studies for	Concord Fault; Segment 2: Green Valley Fault; Segment 3: Cordelia Fault; Segment 5:	tive pipeline align- ment perpendicular to fault orientation (and outside land- slide area). Submit trench design for fault	design recom- mendations should be consistent with standard engineer-	and Contra Costa County Department of Public Works	project
could result in loss of ground bearing capacity and/or lateral spreading, both of which could result in damage to pipeline.  MP 0.32-0.9, 3.0-5.02, 6.1-6.33 Segment 2: MP 6.33-7.75, and WC 6-15, Segment 3: MP 18.9-19.7, 22.85-24.5, and WC 16A and 17, Segment 4: MP 24.5-24.85, Segment 5: MP 61.2-65.2 and all WC's, Segment 6: MP 65.2-66.6, 66.8-67.2,	crossings could result in pipeline rupture.	earthquake response practice into pipeline operations and maintenance	alignment, especially Segments 1,	pipeline operations and maintenance procedures to inspect all parts of the pipeline alignment that fall within the specified distance of the earth-quake epicenter after a seismic	be consistent with standard engineer-	CSLC	Following a seismic event
Segment 7: all	could result in loss of ground bearing capacity and/or lateral spreading, both of which could result in damage to		MF 0.30-0.9, 3.0-5.02, 6.1-6.33 Segment 2: MP 6.33-7.75, and WC 6-15, Segment 3: MP 18.9-19.7, 22.85-24.5, and WC 16A and 17, Segment 4: MP 24.5-24.85, Segment 5: MP 61.2-65.2 and all WC's, Segment 6: MP 65.2-66.6, 66.8-67.2, and 68.3-70,	Review of geo- technical report by impacted counties for county approval regarding com- pliance with local	evaluation and design recom- mendations should be consistent with standard geotech- nical engineering	Solano and Yolo County Departments of Public Works,	

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HS-4: Streambed scour could potentially rupture the pipeline causing a release of petroleum products.	HS-4a: Adequately bury and protect the pipeline	In streambeds along the entire alignment	Establish minimum burial depth of the pipeline at stream crossings and monitor pipeline integrity and cover depth routinely and after floods or other high flow events.	Review and approval of plans for pipeline burial, setbacks, and/or bank protection and monitor integrity.	CSLC	Before and during construction and operation
HS-5: Contamination of surface water could result from accidental rupture of the pipeline during operation or maintenance.	HS-5a: Create spill response procedures to protect waterways.	Entire alignment	Include in Supplemental Spill Response Plan specific measures for containment and clean-up of product spills that could possibly reach surface water.	Review and approval by appropriate agency.	CSLC	Prior to construction
GW-4: Drinking water could be contaminated if product from a pipeline accident migrated to a well used for municipal or private drinking water purposes.	GW-4a: Install thicker- wall pipeline or weight coating in strategic areas.	Entire alignment in areas within a shallow aquifer, or in an area likely to be disturbed by future construction activity near municipal wells	Identification of problematic areas by SFPP in a report.	Review and approval of report by appropriate agency	CSLC	Before and during construction

18-28

Thank you for this opportunity to comment on this very important project. We strongly support the construction of this new pipeline, as it will replace an existing pipeline that has been prone to numerous pipe seam failures. We look forward to working with the State Lands Commission on this project.

Sincerely,

Glenn L. Tong

Chief

Pipeline Safety Division

cc: Bob Gorham Tom Finch

### **Responses to Comment Set 18**

- The CSLC acknowledges the authority of the Office of the State Fire Marshal (CSFM) regarding hazardous liquid pipelines in California. The responsibilities of the CSFM are discussed in the Draft EIR in Section D.2.2.2, related State-level regulation for Pipeline Safety and Risk of Accidents. This Final EIR (see Section 4) includes revisions to Sections D.2.2.1 and D.2.2.2 and the Mitigation Monitoring Program in Section F to recognize where the CSFM has a role as a responsible agency.
- Thank you for the additional information. We agree that new regulations have and are likely to improve pipeline safety further and decrease the frequency of accidents. The extent of these changes is, however, difficult to characterize because it will be many years before long-term data is available that will allow a statistical analysis of the safety improvements. As a result, the analysis included in Section D.2 (Pipeline Safety and Risk of Accidents) of the Draft EIR uses the more extensive yet older data, and as such, is somewhat conservative. We believe that the range of anticipated frequency of unintentional pipeline releases presented in the EIR is reasonable for the purposes of assessing the potential environmental impacts of pipeline operation under the California Environmental Quality Act. While the risk of leaks may be reduced, the impacts of an accidental leak are the same. As noted in Section D.2.1.1 (Draft EIR page D.2-1 to D.2-3), the analysis is intended to predict the performance of the proposed system over its 50-year life.
- 18-3 Section D.2.2.2 (State-level Regulations) of the Final EIR has been revised to reflect the fact that the proposed pipeline is interstate, not intrastate (see Section 4, changes to page D.2-23).
- 18-4 This Final EIR includes revisions to Section B.2 of the Project Description to clarify the relationship of the CSFM to the federal DOT for interstate purposes (see Section 4, changes to page B-1).
- 18-5 This Final EIR includes additional information in Section B.5.3 of the Project Description to describe DOT requirements for Pipeline Integrity Management in high consequence areas (see Section 4, changes to page B-42).
- We acknowledge that the smart pig inspections noted by the CSFM are likely to reduce the stated frequency of incidents caused by external corrosion. Pipelines monitored by internal inspections still have some risk of unintentional releases caused by external corrosion. Please refer to the Response to Comment 18-2, above. While the risk of incidents may consequently be over-stated, the potential impacts of same are not.
- 18-7 The text of Section D.2.2.1 (Federal Regulations) in this Final EIR has been revised to reflect the fact that the CSFM will also review the design and construction of this project (see Section 4, changes to page D.2-21).
- 18-8 The references to Title 49 Code of Federal Regulations (CFR) Part 195 in Table D.2-27 of the Draft EIR have been revised as indicated in this Final EIR (see Section 4, changes to page D.2-22).
- 18-9 The text of Mitigation Measure S-2b (Leak Detection) has been revised in this Final EIR (see Section 4 under changes to Section D.2, page D.2-36).

- 18-10 The text of Mitigation Measure S-2c (Valve Review) has been revised in this Final EIR to specify the CSFM's review of the placement of block and check valves (see Section 4 under changes to Section D.2, page D.2-36).
- 18-11 The text of Impact S-2.1: External Corrosion has been revised in this Final EIR to reflect the extent of the federal requirements (see Section 4, changes to page D.2-38).
- 18-12 The text of Impact S-2.1: External Corrosion has been revised in this Final EIR to reflect current requirements (see Section 4, changes to page D.2-38).
- 18-13 The text of Mitigation Measure S-2e (Conduct Pipeline Inspections) has been revised in this Final EIR to coordinate its requirements with those of the federal regulations (see Section 4, changes to page D.2-38).
- 18-14 The text of Mitigation Measure S-2f (Ensure Proper Cathodic Protection) has been revised in this Final EIR to clarify the relationship of this measure to federal regulations (see Section 4, changes to page D.2-38).
- 18-15 Please see Responses to Comments 18-2 and 18-6.
- 18-16 The text of Impact S-2.2: Internal Corrosion has been revised in this Final EIR to provide current reference to the federal regulations (see Section 4, changes to page D.2-39).
- 18-17 The text of Mitigation Measure S-2g (Pipeline Markers) has been revised in this Final EIR to include a reference to the appropriate DOT regulations (see Section 4, changes to page D.2-40).
- 18-18 The text of Impact S-2.5: Design Flaw (Engineering) has been revised in this Final EIR to recognize the requirements of the CSFM. Also note that the impact classification and corresponding mitigation have been upgraded for this impact (see Section 4, changes to pages D.2-41 and -42).
- 18-19 The text of Mitigation Measure S-3a (Pipeline Abandonment Procedures) has been revised in this Final EIR to recognize the responsibility of the CSFM (see Section 4, changes to page D.2-52).
- 18-20 The text of Mitigation Measure G-5a (General Fault Crossing Design Parameters) has been revised in this Final EIR to recognize CSFM review of seismic design (see Section 4, changes to page D.7-21).
- 18-21 The text of Mitigation Measure G-5b (Pipeline Operations Plan) has been revised in this Final EIR to recognize CSFM involvement in the review and approval of the Pipeline Operations Plan (see Section 4, changes to page D.7-23).
- 18-22 Comment noted.
- 18-23 The text of Mitigation Measure HS-4a (Adequate Pipeline Burial and Protection) has been revised in this Final EIR to recognize CSFM responsibility to ensure project compliance with the federal pipeline safety regulations (see Section 4, changes to page D.8-18).

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- 18-24 Comment noted. Although regulations to implement the requirements for protection of water wells have not been finalized, Mitigation Measure GW-4b (Water Well Protection) would be effective in reducing this impact (see Section 4, changes to page D.8-24).
- 18-25 This Final EIR includes revisions to Section D.9.2.1 of the Land Use analysis to specify the relationship of the CSFM as an agent of the federal DOT (see Section 4, changes to page D.9-14).
- 18-26 This Final EIR includes a revision to Section F.2 to clarify the division of enforcement responsibilities between the CSLC and other responsible agencies, including the CSFM (see Section 4, changes to Section F).
- 18-27 This Final EIR includes revisions to Section F.4 to clarify that issues identified by environmental monitors would need to be immediately reported to responsible agencies, including the CSFM (see Section 4, changes to Section F).
- 18-28 The Mitigation Monitoring Program (see Section 4, changes to Section F) has been revised to recognize the CSFM as an agency responsible to ensure the implementation of all Mitigation Measures associated with Impacts S-2 (Operational Pipeline Accident Causing Injuries or Fatalities), S-3 (Pipeline Abandonment or Removal from Service), G-5 (Fault Rupture), HS-4 (Risk of Surface Water Contamination from Pipeline Rupture Caused by Hydraulic Action), HS-5 (Accidental Contamination of Surface Water with Pipeline Product), and GW-4 (Contamination of Groundwater) and to reflect the modifications enumerated in the above Responses to Comments (see Section 4, changes to Section F).